DOCUMENT RESUME

ED 361 380 TM 020 477

AUTHOR	Chauvin, Sheila W.; Ellett, Chad D.
TITLE	Principal Change Facilitator Style, Bureaucratic and Professional Orientations, and Teacher Receptivity to Change.
PUB DATE	Apr 93
NOTE	42p.; Paper presented at the Annual Meeting of the American Educational Research Association (Atlanta, GA, April 12-16, 1993). For related documents, see TM 020 476-478.
AVAILABLE FROM	Southeastern Louisiana University, 13 Hackberry Street, LaPlace, LA 70068.
PUB TYPE	Reports - Research/Technical (143) -- Speeches/Conference Papers (150)
EDRS PRICE	MF01 Plus Postage. PC Not Available from EDRS.
DESCRIPTORS	Analysis of Variance; Attitude Measures; Change Agents; *Elementary School Teachers; Elementary Secondary Education; *Factor Analysis; Factor Structure; Instructional Leadership; *Leadership Styles; Mail Surveys; *Principals; Professional Autonomy; Questionnaires; *Secondary School Teachers; *Teacher Attitudes; Test Reliability
IDENTIFIERS	Attitudes of Professional Autonomy Scale; Bureaucratic Orientation Scale; Change Facilitator Style Questionnaire; *Facilitators; Louisiana; Receptivity to Change Inventory; Teacher Surveys

ABSTRACT

Conceptions of principal change facilitator style (PCFS) and bureaucratic and professional role orientations (BPROs) are used to explore the construct of teacher receptivity to change (TRC) and the relationships among teacher perceptions of PCFS and their perceptions of receptivity to change. Part I of the study analyzed and refined the instruments. Part II analyzed planned organizational change, TRC, principal leadership, PCFS, and BPROs. A total of 1,921 usable responses to a survey were received during the spring of 1992 from elementary school and secondary school teachers in 81 schools in Louisiana. Data were collected through the Receptivity to Change Inventory, the Attitudes of Professional Autonomy Scale, the Bureaucratic Orientation Scale, and the Change Facilitator Style Questionnaire. Seven kinds of statistical analyses, including factor analyses, reliability analyses, and analysis of variance, were conducted. Results of the study suggest that TRC is not unidimensional, but is at least two-dimensional. The change facilitator style construct is not confirmed as multidimensional, and the Change Facilitator Style Questionnaire is strongly confirmed as a measure of change facilitator style. Results raise questions about the conceptualization of teachers' professional orientations. Overall, findings support PCFS as a potent variable for understanding TRC, although the relationships among the variables are not those found in the literature on change. Three figures illustrate the discussion. (Contains 44 references.) (SLD)

ED 361 380

Principal Change Facilitator Style, Bureaucratic and Professional Orientations, and Teacher Receptivity to Change

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)
✓ This document has been reproduced as received from the person or organization originating it.
☐ Minor changes have been made to improve reproduction quality.
• Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

"PERMISSION TO REPRODUCE THIS MATERIAL IN OTHER THAN PAPER COPY HAS BEEN GRANTED BY
SHEILA W. CHAUVIN
TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)."

Sheila W. Chauvin
Southeastern Louisiana University

Chad D. Ellett
Louisiana State University

A paper presented at the annual meeting of the American Educational Research Association, Atlanta, Georgia, April 1993.

TM020477

BEST COPY AVAILABLE

Principal Change Facilitator Style, Bureaucratic and Professional Orientations, and Teacher Receptivity to Change

Introduction

The primary purpose of this study was to use conceptions of principal change facilitator style and bureaucratic and professional role orientations to explore the construct of teacher receptivity to change. This study represented an initial exploratory study of the relationships among these variables to enhance our understanding of schools as complex social systems and to develop a conceptual framework for planned organizational change in schools. A secondary purpose of the study was to use a series of data analyses to examine the construct validity and further refine the measures that operationalized the variables explored. The study is the first known in the literature to examine relationships among these variables in concert with a common set of schools, principals, and teachers.

Perspectives

Contemporary approaches to organizational theory have recognized the complex and interactive nature of schools and depict schools as complex social systems concerned with both institutional and individual dimensions of organizational functioning (Getzels & Guba, 1957; Hoy & Miskel, 1987; Lipham, 1988). In addition, the recent education literature characterizes American public education by frequent and recurring calls for educational reform (Murphy, 1989; Cuban, 1990). Thus, while schools are recognized as complex social systems, they are frequently faced with reform initiatives intended to change key elements of their structures and/or functions. Within this context, teachers have often been characterized as resistant to change and rigid in their conceptions of organizational roles (Giacquinta, 1973; Hopkins, 1990), while

principals have been described as having substantial influences on effecting positive school change and outcomes (Bossert, Dwyer, Rowan & Lee, 1982; Hallinger & Murphy, 1985; Hall & Hord, 1987). However, despite recurring and concerted organizational change efforts, schools and classrooms remain virtually the same today as they were more than a hundred years ago (Cuban 1988, 1990).

Although much has been written and developed regarding strategies for effecting change in schools (e.g., Bennis, Benne & Chin, 1969; Hall & Hord, 1987; Havelock, 1973; Harvey, 1990), there is no comprehensive theoretical perspective on the *process* of planned organizational change in schools (Giacquinta, 1973; Waugh & Punch, 1987). In particular, little is known regarding the relationships among variables such as bureaucratic and professional orientations, teachers' perceptions of principal change facilitator style, and teacher receptivity to change. Past studies suggest that, individually, these variables are useful in understanding planned organizational change in schools. However, investigations involving the variables in this study had not been previously explored within a single study. Teacher receptivity to change is considered an important element in the development of a comprehensive theoretical conception of planned organizational change in schools (Corbett, Dawson, & Firestone, 1874; Corbett, Firestone & Rossman, 1987; Darling-Hammond, 1990), yet it is not clearly understood. Thus, investigation of these variables in concert can provide information that is useful for developing a comprehensive conception of planned organizational change in schools.

Conceptual Framework

Since no comprehensive, theoretical conception of planned organizational change in schools was available to guide theory-based research in this area, a conceptual model was

developed based upon psychological (Lewin, 1947) and social systems (Getzels & Guba, 1957) conceptions of individual and organizational behavior. In addition, a sociotechnical perspective of school organizations (Owens & Steinhoff, 1976) was incorporated into the conceptual model in an attempt to reflect the complexity of school organizational structure and functioning. While each theory has limitations, each theory contains elements that contribute to a conceptual model of change that is depicted in Figure 1.

The conceptual model depicted in Figure 1 uses present conceptions of the above constructs in an attempt to expand the nomological networks (Cronbach & Meehl, 1955) presently supporting teacher receptivity to change, bureaucratic and professional orientations, and principal change facilitator style. Inherent in the conceptual model is the recognition of multiple individual, social, and organizational factors that function in complex and simultaneously interactive relationships to influence planned organizational change in schools.

A complete discussion of each of these conceptual frameworks contributing to the model, as well as key elements reflected in this model to organize the study variables is included in Chauvin (1992). However, for the purposes of this paper, two points are noteworthy: 1) this model depicts complex relationships among personal and contextual variables present in schools; and 2) this study only focused on several key variables selected from a larger group of variables that may be influencing the process of planned organizational change in schools.

Research Questions

Since the literature offers limited theoretical bases for predicting relationships between the study variables, this investigation served an exploratory function and addressed issues in the form of research questions rather than hypotheses. Three major objectives guided the

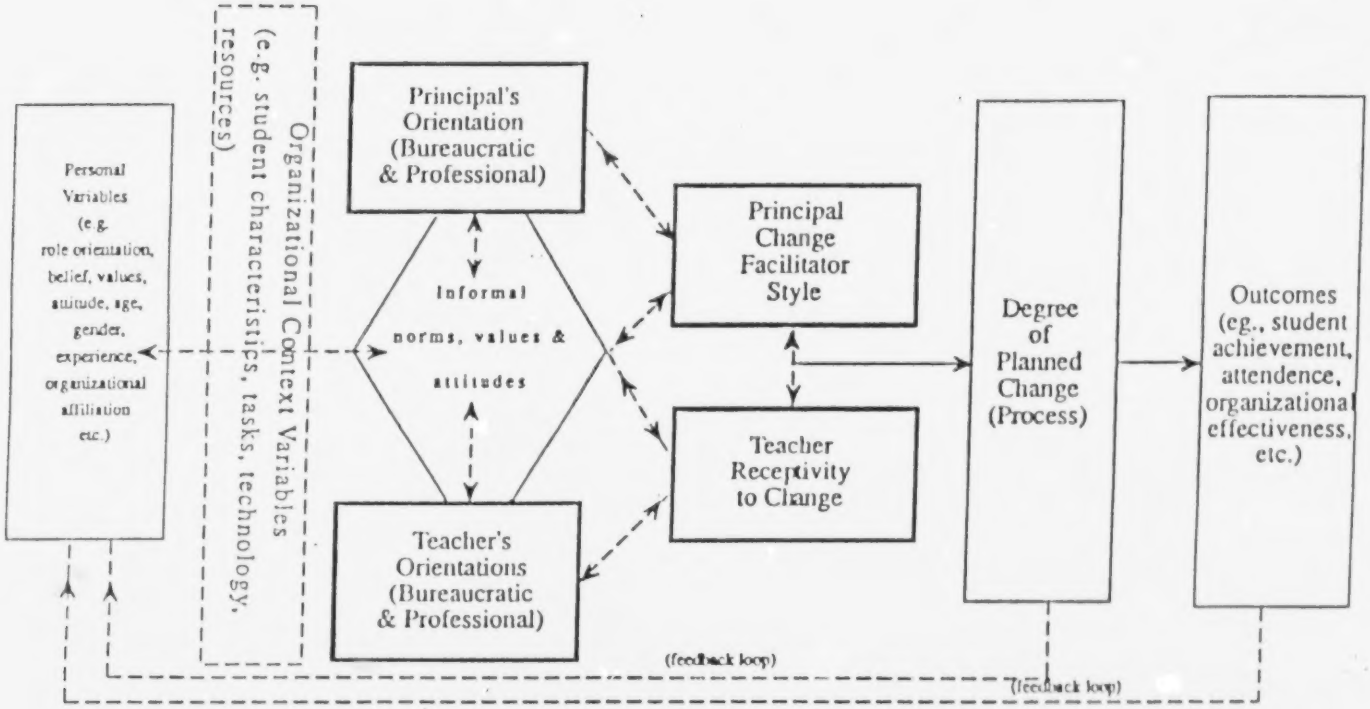

Personal Variables (e.g. role orientation, belief, values, attitude, age, gender, experience, organizational affiliation etc.)
Organizational Context Variables (e.g. student characteristics, tasks, technology, resources)
Principal's Orientation (Bureaucratic & Professional)
Informal norms, values & attitudes
Teacher's Orientations (Bureaucratic & Professional)
Principal Change Facilitator Style
Teacher Receptivity to Change
Degree of Planned Change (Process)
Outcomes (eg., student achievement, attendence, organizational effectiveness, etc.)
(feedback loop)
(feedback loop)

Figure 1. Conceptual model for study variables: Relationships between bureaucratic and professional orientations, principal change facilitator style, and teacher receptivity to change.

development of research questions and corresponding research activities completed in this study: 1) to examine the construct validity and/or refine measures to assess the constructs of principal change facilitator style, bureaucratic and professional orientations, and teacher receptivity to change; 2) to explore nomological networks (Cronbach & Meehl, 1955) for these variables to contribute to the development of a comprehensive, theoretical conception of planned organizational change; and 3) to explore methodological issues using various units of analysis and the implications of the results for understanding the complexity of planned organizational change in schools. Eight primary research questions guided the study. Suggested by these research findings, five supplemental research questions were explored and additional analyses were also completed. Among the research questions guiding the study were the following:

1) Are there bivariate relationships between teachers' perceptions of principal change facilitator style, teachers' bureaucratic and professional orientations, and teachers' self-perceptions of receptivity to change?

2) What percentage of the variation in measures of teacher receptivity to change is explained or accounted for by principal change facilitator style, bureaucratic orientation, and professional orientation?

3) To what extent are teacher receptivity to change and teachers' perceptions of principal change facilitator style moderated by bureaucratic and professional orientations?

4) Is there a multivariate relationship between teachers' perceptions of principal change facilitator style and teachers' self-perceptions of bureaucratic and professional orientations and teacher receptivity to change?

5) Does the within-school variance of teacher receptivity to change explain or account for significant amounts of variance in perceived principal change facilitator style?

6) Are there significant differences among schools based upon the degree to which teachers and the principal are congruent in their bureaucratic and professional orientations and perceptions of teacher receptivity to change?

7) Are there significant differences among schools in terms of school-level receptivity to change based upon: 1) the degree to which the principal and teachers in a school agree on measures of teachers' perceptions of principal change facilitator style, and 2) the degree to which the principal and teachers in a school agree on measures of perceptions of teacher receptivity to change?

8) Are there relationships between selected individual and school demographic variables and teacher receptivity to change, teachers' perceptions of principal change facilitator style, and teachers' and principals' bureaucratic and professional orientations?

Research Design and Methodology

To explore relationships among principal change facilitator style, bureaucratic and professional orientations, and teacher receptivity to change, an ex post facto research design was used in which the variables were assigned and not manipulated (Campbell & Stanley, 1963).

The dependent variable conceptualized and operationalized in this research design was teacher receptivity to change. However, independent variables also served as dependent variables for selected research questions and subsequent data analyses.

Independent variables were conceptualized and operationalized in this research design as two dimensions of organizational role orientations and six aspects or elements of principal change

facilitator style. Organizational role orientations included 1) bureaucratic orientation and 2) professional orientation. Principal change facilitator style variables included 1) social/informal interactions, 2) formal/meaningful interactions, 3) administrative efficiency, 4) trust in others, 5) day to day, and 6) vision and planning. These independent variables were conceptualized as dependent variables in other analyses of the data.

Sample and Data Collection

The sample for this study consisted of all principals and teachers in 94 public schools in six school districts in the southern region of Louisiana. The school sample closely reflected the statewide distribution of all schools by level (elementary, 49%; middle, 20%; high, 31%) and by socioeconomic status (SES). Useable data were received during the spring of 1992 through an administration of an instrument packet to each teacher and the principal in each participating school. At least 40% of the teachers in each of 81 schools (86.17%) and the school principal in each of these 81 schools responded to the complete instrument packet. The number of useable teacher responses was 1,921.

Instrumentation

Four instruments were used for data collection in this study: 1) the Receptivity to Change Inventory (RCI) (Crisafulli, 1982; Hennigar, 1979); 2) the Attitudes of Professional Autonomy (APA) (Forsyth & Danisiewicz, 1985); 3) the Bureaucratic Orientation Scale (BOS) (Corwin, 1965, 1970; DiPaola, 1990; Kuhlman & Hoy, 1974); and 4) the Change Facilitator Style Questionnaire (CFSQ) (Hall & Vandenberghe, 1987). Demographic information was also obtained from respondents (teachers and principals) using items included in the complete instrument packet.

Data Analyses

Seven kinds of statistical analyses were completed in this study: 1) descriptive summaries for sample demographic characteristics and instrument items and subscales; 2) a series of factor analyses of the RCI, APA, BOS, and CFSQ; 3) internal consistency reliability analyses; 4) bivariate correlations among the various factor analyzed (revised) versions of the RCI, APA, CFSQ and the original (confirmed) version of the BOS , both across and within schools; 5) a series of t tests and ANOVAs; 6) a series of stepwise, multiple regression and canonical correlation analyses; and 7) selected within-school correlation analyses to explore common method variance concerns. A complete description of the results is included in Chauvin (1992). For the purpose of this paper, only the most notable results will be reported in the section that follows.

Results

As mentioned previously, the study was completed in two major parts. The first part of the study focused on analyses and refinements of instruments used to measure variables in the study. The second part of the study focused on analyses pertinent to selected research questions drawn from the literature on planned organizational change, teacher receptivity to change, principal leadership and principal change facilitator style, and bureaucratic and professional role orientations.

Factor Analyses

Comprising the first part of the study, extensive factor analyses were completed with all four instruments used in the study using teachers (n=1921) as the units of analysis. While

discussed in complete detail in Chauvin (1992), the most relevant findings of these analyses for each instrument are as follows:

CFSQ: The CFSQ was reconceptualized as a one-factor instrument measuring a global construct termed proactive/strategic leadership (CFSQ).

RCI: The RCI was reconceptualized as a two-dimensional measure of Cultural/Normative Change (CNC) and Superficial/Behavioral Change (SBC).

BOS: The BOS was confirmed as a uni-dimensional measure of bureaucratic orientation (BOS).

APA: The APA was reconceptualized as a two-dimensional measure of Interpersonal Autonomy (IA) and Organizational Autonomy (OA).

The factor analyzed (revised) versions of the instruments and subscales listed above were used in all subsequent analyses.

Reliability Analyses

Alpha internal consistency reliability coefficients were computed for each reconstructed measure for all schools with at least 15 teacher respondents (n = 59 schools). Alpha coefficients were computed for each reconstructed subscale/scale measures (SBC, CNC, IA, OA, and BOS) as well as the original total instrument versions of the RCI and APA. Alpha coefficients for the measures ranged from .66 (IA) to .95 (CFSQ) for all teachers; .63 (OA) to .91 (RCI) for principals.

The range in Alpha coefficients was also computed for each subscale/scale for teachers in all schools with at least 15 teacher respondents (n = 59). Data analyzed at the school level demonstrated reliability estimates within acceptable ranges (.60-.69) for a majority of schools for

most subscales/scales. The RCI (total instrument) and the CFSQ (reconstructed/total instrument) had the largest number of schools with Alpha coefficients in the .80 to .99 range, while the APA (total instrument) had a large number of schools in much lower Alpha coefficient ranges (.59 and below).

Intercorrelations Among Subscales/Scales

Person product-moment correlations between reconstructed subscales/scales were computed for all schools and by school level. Only schools with at least 40% teacher response rates (n=81) were used for computing these correlations, as well as subsequent analyses pertinent to research questions guiding this study. The RCI subscales (SBC and CNC) were positively and rather strongly associated with the RCI scale/total instrument in all schools, as well as by school level. The correlation between the RCI subscales (SBC and CNC) was rather moderate in magnitude and positive in direction (.53, $p < .0001$) for all schools. Similar correlations were noted between these subscales by school levels: elementary (.37, $p < .01$), middle (.61, $p < .01$), and secondary (.79, $p < .0001$).

Correlations were also computed between the professional attitudinal autonomy (APA) subscales using school (teacher) mean scores as the units of analysis (n=81). The correlation between the IA and the OA subscales show little or no relationship (.02, $p < .88$). At the elementary and middle school levels, relative independence of these subscales was further supported (-.0001 and -.51, respectively). The correlation between the IA and the OA at the secondary school level (.43, $p < .07$) suggests a moderate, positive relationship between the two subscales. Correlations between the IA and OA generally support these subscales as relatively

independent measures of distinct constructs, both of which seem to operationally define the more abstract construct of professional attitudinal autonomy (APA).

The correlation between the APA and the BOS (bureaucratic orientation) for all schools was negative in direction and moderately strong in magnitude (-.48, $p < .0001$). The correlation between the OA and the BOS revealed a rather strong, negative relationship (-.81, $p < .0001$). While not statistically significant, the magnitude of the correlation between the IA and the BOS (.11) suggested only a weak relationship. Correlations between variables for all schools were generally replicated in correlational analyses for these variables by school level (elementary, middle, secondary).

Analyses Pertinent to Research Questions

As previously noted, eight primary research questions guided this study. These research questions focused on exploring relationships between teachers' perceptions of principal change facilitator style, bureaucratic and professional orientations and teachers' self-perceptions of receptivity to change. School means, individual teacher, and principal scores were used as the units of analyses as deemed appropriate for each particular research question. For all measures, except bureaucratic orientation (BOS), the reconstructed subscales/scales resulting from factor analyses completed in part I of this study were used for analyses pertinent to the research questions guiding this study. While a detailed description of results pertinent to each research question is included in Chauvin (1992), only the most pertinent results are summarized here.

Results of analyses completed in response to primary research questions guiding the study yielded only one statistically significant ($p < .05$) bivariate correlation among the various measures for the total sample of schools ($n = 81$) using school (teacher) means as the units of

analysis was for CFSQ and CNC ($r = -.25$). Interestingly, only one statistically significant correlation between the IA and the CFSQ was noted: at the secondary level ($r = -.61$, $p < .01$). The RCI subscales of CNC and SBC were significantly correlated ($r = .53$, $p < .0001$) ($n=81$). However, the APA subscales of IA and OA were not significantly correlated ($r = .29$, $p > .05$) ($n=81$). The OA and BOS were significantly, but negatively correlated ($r = -.81$, $p < .0001$) ($n=81$) as expected.

A series of partial correlation analyses were completed between the CFSQ and teacher receptivity to change variables (SBC and CNC) while controlling for covariation of these variables with bureaucratic orientation (BOS) and proxy measure of professional orientation (IA and OA). Results of these analyses revealed six of eight correlations to be statistically significant, negative in direction and moderate in magnitude. Comparison of these results with Pearson correlation coefficients revealed similar correlational patterns with the partial correlations being slightly stronger in magnitude.

Principal (individual) and school (teacher) mean BOS scores were significantly correlated ($r = .29$, $p < .01$) for the total sample ($n=81$), as were these same indices for IA ($r = .27$, $p < .05$). For the middle school sample, principal and teacher scores were strongly and significantly correlated ($r = .70$, $p < .01$) ($n=17$).

The results of a series of stepwise regressions were not of sufficient magnitude to be considered educationally meaningful. A single canonical correlation ($R_c = .78$, $p < .05$) was established between BOS, IA, and OA as one variable set and SBC and CNC as the second variable set for the subsample of high schools ($n=18$). The main contributors to the significant canonical correlation were IA and CNC.

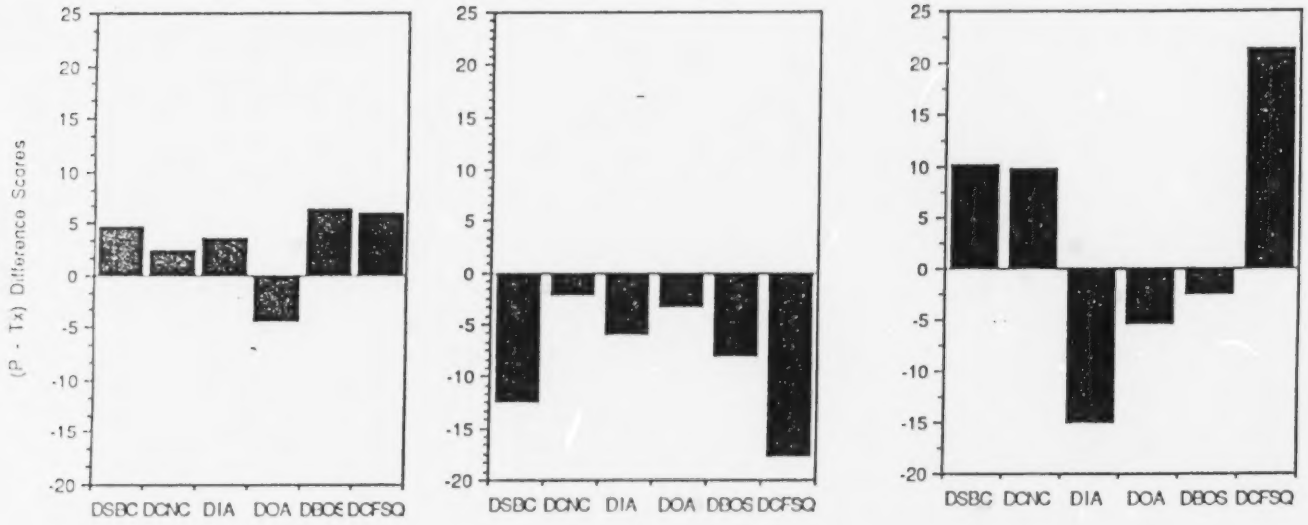
Importantly, within-school correlations among the various measures varied considerably in both magnitude and direction. For example, the within school variation in correlations between CNC and CFSQ was from -.52 to .69. The range of within-school correlations between SBC and CFSQ was from -.56 to .75.

Subsequent to these analyses, plots of outlier schools were made using principal (individual) and school (teacher) mean score differences for independent variables in the design (IA, OA, BOS, and CFSQ) for schools with similar SBC and CNC school (teacher) mean scores (dependent variables). As evidenced by example profiles shown in Figures 2 and 3, the profiles of the outlier schools identified were obviously different.

Discussion

The study was completed in two major parts. Part I of the study focused on analyses and refinements of instruments used to measure variables in the study. The construct validity of these measures was explored to further refine them as operational definitions of key variables. Part II of the study focused on analyses pertinent to selected research questions drawn from the literature on planned organizational change, teacher receptivity to change, principal leadership and principal change facilitator style, and bureaucratic and professional orientations.

The results of analyses completed in this study suggest a three part discussion: 1) instrumentation and construct validity concerns (Part I of the study); conclusions and major issues derived from analyses of research questions, supplemental research questions, and additional analyses in this study (Part II of the study); and 3) methodological issues raised by this study. While discussed in greater breadth and depth in Chauvin (1992), several points pertinent to each part are noteworthy.



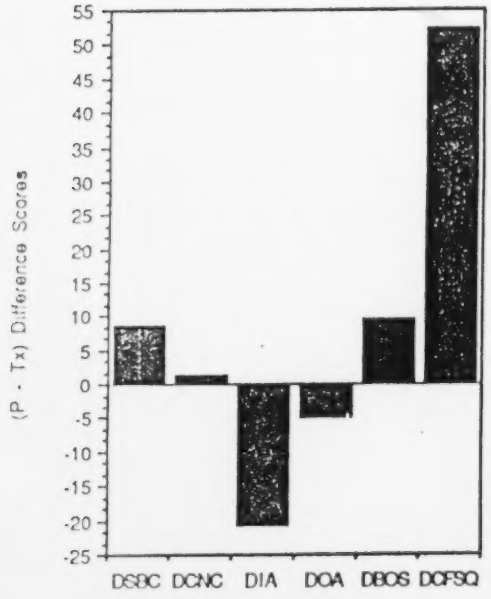
SID : 92[a]
MSBC = 68.2205[b]
MCNC = 31.5151[b]

SID : 93[a]
MSBC = 73.3198[b]
MCNC = 32.1044[b]

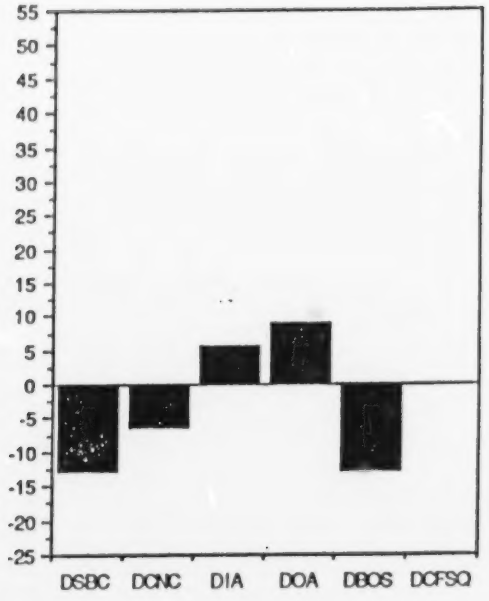
SID : 94[a]
MSBC = 73.8093[b]
MCNC = 32.1479[b]

a Schools are in the same school district
b Mean scores were among the ten lowest scores in the sample

Figure 2. Principal-teacher mean difference scores for subscales/scales in selected schools in the same school district with low levels of teacher receptivity to superficial/behavioral (SBC) and cultural/normative (CNC) change.



SID : 51[a]
MSBC = 86.5714[b]
MCNC = 42.7565[b]



SID : 38[a]
MSBC = 87.7297[b]
MCNC = 42.4034[b]

a Schools are in different school districts
b Mean scores were among ten highest scores in sample

Figure 3. Principal-teacher mean difference scores for subscales/scales in selected schools in different school districts with high levels of teacher receptivity to superificial/behavioral (SBC) and cultural/normative (CNC) change.

Instrumentation and Construct Validity Concerns

Results of the first part of this study suggest that considerable work is needed in refining conceptual and operational definitions of the study variables that are viewed as key to studying planned organizational change in schools. For example, results of this study suggest that the teacher receptivity to change construct, as measured by the revised form of the RCI, is not uni-dimensional, but at least two-dimensional in nature. Similarly, results of part I of this study failed to confirm the change facilitator style construct as multidimensional and strongly confirmed the CFSQ as a unidimensional measure of change facilitator style. Results of this study also raised questions regarding the conceptualization of professional orientation of teachers. During times of proposed systemic changes in the traditional form and function of schools organizations, it seems particularly important to re-examine and redefine conceptions of key variables such as teacher receptivity to change, principal change facilitator style, and professional orientation to reflect newer perspectives regarding teachers' and principals' school organizational roles.

Understanding how teachers perceive planned changes or reforms may be a substantial contribution to understanding the process of successful change in schools and the development of a comprehensive, theoretical conception of planned organizational change in schools. A two-dimensional conception of teacher receptivity to change is compatible with the idea that teachers will tolerate or adopt some types of changes (e.g., superficial/behavioral), but will strongly resist changes that are perceived to significantly alter or threaten established role conceptions, normative patterns, and values or beliefs (e.g., cultural/normative changes). Results of this study suggest that with continued efforts to refine the construct definition and measurement of

teacher receptivity to change, more than two dimensions to this change construct may be identified.

Similarly, results of the factor analyses in this study failed to confirm the change facilitator style construct as multidimensional and strongly confirmed the CFSQ as a unidimensional measure of change facilitator style. Upon closer examination, the conceptualization of change facilitator style is quite similar to essential elements or characteristics of principal leadership behavior often described as proactive and strategic principal leadership (Blumberg, & Greenfield, 1986; Leithwood & Montgomery, 1982; Sergiovanni, 1986). Thus, the CFSQ appears to validly and reliably measure a principal leadership construct in a context of change that is often discussed in the literature as important in creating effective schools.

This finding is encouraging, given the concerns reflected by Murphy (1988) and others (e.g., Bossert, et. al., 1982) regarding the conceptualization and measurement of effective principal leadership behaviors or style. Thus, a positive contribution of this study to theory development of principal leadership and effectiveness is the construct validity and high reliability of the CFSQ as a simple and parsimonious conception of proactive/strategic principal leadership style. As a unidimensional measure of proactive/strategic leadership, the CFSQ can be useful in the development of theoretical frameworks for explaining planned organizational change in schools and principal leadership style. Also, a simpler theoretical conception of principal leadership that can accommodate a broad variety of school contexts seems preferable to more complex depictions of leadership style (e.g., Fiedler, 1978; Hersey & Blanchard, 1988; House, 1974).

In recent years, there has been a resurgence in the literature concerned with the professionalization of teaching. In part, this renewed interest in the professionalism of teachers has resulted from current educational reform initiatives that purport to significantly alter systemic aspects of school organizations that include restructuring teachers' roles and responsibilities. Despite this renewed interest, research efforts of the past 15 to 20 years have heavily identified professional orientation with elements of attitudinal autonomy. Earlier conceptions of professional orientation have been defined in terms of autonomy from other individuals within the organization, as well as autonomy from the organizational structures and processes. Based upon these earlier conceptions of professional orientation, instruments such as the APA have often been used as proxy measures of the more global conception of teachers' professional orientations. However, more recent conceptions of professionalism among teachers suggest that collaborative efforts and group consensus are also important elements of professional orientations in teaching. These recent developments in the literature, as well as results of this study, suggest that conceptions of professional orientation may need to be updated to reflect the newer ideas regarding specific elements of professionalism among teachers in school organizations.

Major Findings and Conclusions Pertinent to Research Questions

When considered collectively, the findings from part II of the study strongly support principal change facilitator style as a potent variable for understanding teacher receptivity to change. However, the relationship between these variables is inverse and at odds with findings in the change literature. Past research has shown positive relationships between teachers' involvement in implementation of change and principal leadership or change facilitator style (Anderson, 1990; Hall & Hord, 1987). The results in this study show that relationships between

teacher receptivity to change and principal leadership may not parallel change situations involving actual implementation. Thus, questions arise regarding receptivity to change during various stages of the change process. Questions also arise about the perplexing and rather paradoxical relationships that are suggested between principal leadership style and teacher receptivity to change versus implementation and incorporation of change initiatives.

The consistent and inverse relationship between teacher receptivity to cultural/normative change (CNC) and principal change facilitator style identified in this study is a major finding and contribution to the development of theoretical conceptions of planned organizational change in schools. While these findings seem to confirm the importance of principal leadership style in the change process in schools, they also suggest that the nature of relationships between principal leadership behavior and teachers' responses to change vary according to the specific aspect of planned change that is targeted (e.g., receptivity to change versus implementation of planned change). A general pattern of consistently negative and moderate associations was noted between these variables in school-level analyses.

Similarly, analyses of within-school correlations completed in this study reflect that relationships between these variables vary considerably from one school to the next. These findings suggest greater complexity of relationships between principal leadership style and various elements of planned organizational change in schools (e.g., teacher receptivity to change versus teachers' level of involvement in implementation of change efforts) than have been previously described and empirically verified.

In another sense, the inverse relationship between principal change facilitator style and teacher receptivity to cultural/normative changes identified in this study is not surprising, given

the current focus in the literature on the unique, contextual characteristics of school organizations and the call for greater sensitivity to complex and interactive relationships within specific contexts (Murphy, 1988; Wimpleberg, et al., 1989). What is evident in this study is the obvious complexity and context-specific nature of principal leadership style. This finding raises a new set of questions regarding the paradoxical and perplexing nature of relationships between principal behavior and teacher responses to change that appear to be different for different indices of receptivity and implementation. How might these discrepancies be explained?

First, it may be that teachers are less receptive to cultural/normative changes when the principal is perceived as evidencing high change facilitating behaviors because teachers believe changes in normative patterns will eventually be required of them. An alternative explanation, however, reflects schools where deep-seated, cultural norms are clearly embedded in the organization. In these contexts, it may be easier for a principal to act in proactive and strategic ways because teachers know that cultural/normative changes will not really occur or be impacted by the principal's behavior. Also, these responses to change may be unique to the introductory and adoptive stages of change processes, or they may be present at different levels during subsequent stages of change (e.g., implementation and incorporation).

Given the positive relationship identified in past studies between these variables, it may be that change efforts that persist through later stages of planned change do so because of high change facilitating behaviors. Similarly, these principal behaviors may be important in enhancing more positive receptivity toward change efforts. Thus, results in this study raise questions regarding the stability of teachers' perceptions of change efforts and the influence of role

orientations and principal leadership style as teachers progress through various stages of change processes in schools.

A second explanation may center around the nature of principal leadership behavior. Hallinger and Murphy (1985), Wimpleberg, et al. (1989) and others (e.g., Blumberg & Greenfield, 1986; Evans, 1988; Lightfoot, 1983) suggest distinctly different, but effective, principal leadership styles in a variety of school contexts. Thus, principal leadership style, school context or the specific aspect of change process may not, individually, provide sufficient explanations of planned organizational change in schools. Rather, as suggested by Hallinger and Murphy (1985) and Wimpleberg, et al. (1989), the differentiating feature for understanding planned organizational change in schools may be the fit or complementary match among principal leadership style, school context variables, stages of change within the school organization, and the primary focus on change processes (e.g., receptivity to change during adoption versus implementation or receptivity to change during implementation). For example, principals who are perceived as high in change facilitating behaviors (e.g., Initiators) may be most effective in certain school contexts, but not in others. Results of analyses in this study revealed a negative relationship between principal change facilitator style and teacher receptivity to cultural/normative change for the total sample of schools and for samples of schools by school level (elementary, middle, secondary). However, results of the within-school analyses revealed positive relationships between principal change facilitator style and teacher receptivity to cultural change in some individual schools.

Similarly, results of analyses in this study suggest that teachers seem to perceive principal leadership style in global terms along a continuum that reflects frequent demonstration of many

proactive/strategic leadership behaviors to demonstration of infrequent and few proactive/strategic leadership behaviors. Teachers did not differentiate principal leadership style in terms of subcategories of leadership behaviors (e.g., Concern for People and Strategic Sense). Rather, teachers tended to perceive discrete principal leadership behaviors as reflective of an overall style or gestalt that was represented along a continuum from "a little" to "a lot" of proactive/strategic leadership style (e.g., low/Responder change facilitator style to high/Initiator change facilitator style).

Given the consideration of context features and specific aspects of the change process, there does not seem to be one generic set of effective leadership behaviors that is applicable in all situations. Based on the findings and conclusions of this study and contributions in the literature on planned change and on principal leadership, it makes no sense to describe an effective change facilitator style or leadership style without qualifying it in terms of specific aspects of the change process (e.g., teacher receptivity to change) and the specific school context (e.g., school level). It may be useful in future studies to identify particular context variables (e.g., school level and SES) and statistically control for these characteristics while studying relationships between variables such as principal leadership style and teacher receptivity to change. Additional insights might also be gained by focusing on specific stages or aspects of the change processes in longitudinal studies.

Past studies of change have focused primarily on the implementation of educational innovations in schools at the classroom level (e.g., Anderson, 1990; Hall & Hord, 1987). However, this study focused on large-scale, school level organizational changes. Possible explanations for the conflicting results are the shift in focus to school organizational changes

(e.g., cultural/normative changes), as well as to teacher receptivity to change, rather than teachers' involvement in implementation of planned change. Thus, change facilitator styles may be differentially associated with various elements of change processes. In this study, the relationship between principal leadership style and teacher receptivity to change was particularly focused on cultural/normative changes. While teachers' responses to change efforts measured by the RCI reflect superficial/behavioral and cultural/normative concerns, principals perceived teachers' responses to change in rather generic and global ways. Given the recent attention focused on efforts to change systemic elements of school organizations (Cuban, 1988, 1990; Darling-Hammond, 1990; Murphy, 1989; Sarason, 1990), it may be that there is need to heighten principals sensitivity to teachers' varying tolerance levels for different types of changes.

The negative relationship between principal change facilitator style and teacher receptivity to cultural/normative change in this study suggests a somewhat different lens for examining the influence of principal leadership on effecting long-lasting school organizational change. Given the intractibility of effecting successful change across various school contexts, findings in this study suggest that recent conceptions of strategic and cultural elements of principal leadership (Hall, 1988; Sergiovanni, 1986) may be even more critical to effecting long-lasting change than originally conceptualized. Characteristics of proactive and strategic leadership such as enduring focus and vision, and long-term commitment and drive may be critical for surviving initial responses or receptivity to systemic and cultural/normative changes and/or changing negative receptivity to positive receptivity. Said another way, proactive and strategic leadership style may be an essential key to altering organizational norms and values to ensure long-lasting change

that is incorporated into the everyday life of schools. This leadership characteristic may also be an essential element of creating a culture for change (Foster, 1986; Joyce, 1990).

The inverse relationship between these variables suggests yet a third perspective. In some schools, teachers may be more open to systemic or cultural/normative changes because the principal is not perceived to be a change facilitator or to be high in proactive/strategic leadership style. That is, teachers in such situations are ready for substantial changes in the school organizational context. This might be particularly the case in situations where teachers are proactive and the principal's leadership style is essentially reactive. Conversely, it may be easier for a principal to evidence proactive/strategic leadership (or high change facilitator style) in school contexts where cultural norms are clearly established and these normative patterns are agreeably considered "off-limits" by the principal and teachers as targets for change.

Questions raised by this initial exploration of teacher receptivity to change reiterate the seemingly complex and paradoxical relationships among other variables that have been identified in studies focused on other aspects of school organizational form and function. For example, Logan (1990) found various unique combinations and levels of coupling structure in schools, and Johnson (1991) found similar paradoxical relationships relating to centralization of decision making and teacher work alienation.

The focus of this study was on relationships between principal change facilitator style and teacher receptivity to change at the introduction stage of the change process. Cuban (1988, 1990) Fullan (1985, 1990) and Murphy (1989) suggest that there is critical need to carefully examine all aspects of planned organizational change as these occur throughout each stage of the

change process. Thus, future investigations might focus on the variables examined in this study at different stages during the planned change process.

Other findings in this study highlight several important issues in understanding planned organizational change in schools: 1) relationships between teacher receptivity to change and principal change facilitator style appear to be independent of bureaucratic and professional orientations, and SES; 2) bureaucratic and professional orientations, as conceptualized and operationalized in this study, are not useful variables for understanding teacher receptivity to change; and 3) relationships between variables studied do not seem to be moderated by various demographic variables. Finally, a comparison of results from between school analyses to within school analyses yielded markedly different sets of conclusions. As discussed in greater detail in Chauvin (1992), these findings and resulting conclusions give rise to a variety of important questions that need to be addressed in future research. Results of this study also suggest that the conceptual model developed to organize variables for this study appears to have utility in guiding future research on variables related to planned organizational change processes in schools (e.g., teacher receptivity to change and principal change facilitator style/strategic leadership style).

Methodological Issues

Understanding the relationships among research questions or hypotheses, units of analysis, design considerations, generalization of results, and subsequent implications for theory development is important. In this study, several different units of analysis were used for different purposes. For example, factor analyses were completed to explore construct validity concerns for measures using teachers as the units of analysis. Major research questions were explored using schools as the units of analysis, and teachers within schools were used to explore

common method variance issues. Each of these units of analysis is important and each has utility for different research purposes.

Most important to note in this study are the differences that were found in results obtained using schools as the units of analysis versus results obtained using teachers within schools as the units of analysis. In this study, the relationships among variables derived from within-school analyses were markedly different than those evident in analyses using schools as the units of analysis. Thus, research and theory need to accommodate the vast differences shown in these results in comparing relationships among variables within schools to those established using school (teacher) mean scores as the units of analysis.

Results in this study, as well as recent others (e.g., Johnson, 1991; Logan, 1990), show that analyses using school (teacher) mean scores can mask what may well be important within school variations in the relationships among study variables. Three issues arise from these findings: 1) there are recognizable limitations to sole reliance on the use of school mean scores as the units of analysis in studying relationships among variables in school organizational research; 2) there is a need to consider use of qualitative research methodology as a follow-up to studies using quantitative methods, or designs that reflect the combined use of these research methodologies; and, most importantly, 3) as theories are developed, they must be able to explain both relationships among variables across schools, as well as differences in relationships among variables within schools. Most theories have been based on research findings between schools, rather than on findings that look at the variation in within-school relationships from one school to the next. Thus, definitions of constructs and conceptualizations of their relationships in

developing theoretical frameworks need to accommodate findings from studies of between and within schools.

Although a popular discussion currently exists in the literature regarding the complementarity of quantitative and qualitative research methodologies, current theories in the literature seem to primarily reflect two approaches to research design: 1) quantitative analyses using school mean scores to develop/understand major constructs and construct relations; or 2) qualitative research methodologies focused on a small number of intense cases of which results are used to generalize across schools. This study provides specific examples that suggest the usefulness of combining these research methodologies to expand our understanding of school organizations. For example, correlational analyses using school (teacher) mean scores as the units of analysis revealed relationships among variables across schools. However, examinations of within-school correlations using teachers within schools as the units of analysis, as well as examination of individual school profiles using 2 X 2 plots, line graphs, and bar graphs (quantitative methods) yielded information useful for selecting outlier schools for possible follow-up research using qualitative methodologies.

Implications

The results of this study are interesting from a variety of perspectives. The results show that three of the measures previously cited in the literature (CFSQ, APA, and RCI) may need to be reconceptualized at the measurement construct level. Some of these variables (e.g., principal change facilitator style) were confirmed as important elements of the nomological network (Cronbach & Meehl, 1955) for conceptualizing planned organizational change in schools, while others were not found to be conceptually linked to elements of planned change

(e.g., bureaucratic and professional orientations). The continued development of useful theoretical frameworks to understand change processes in schools is dependent upon a continuation of similar research efforts.

Results of this study also have a number of implications for future research. Two overriding concerns that warrant specific attention in future studies. Most important is the necessity to explain relationships among variables in terms of variation across schools, as well as within schools. The second concern relates to the selection of appropriate units of analysis and the generalization of findings in theory development. With these general concerns in mind for designing future research, several broad areas appear important for designing future research: 1) refinement of conceptual and operational definitions for study variables; 2) identification and exploration of related variables; 3) development of research questions and use of various research designs and units of analysis to facilitate appropriate generalization of findings and future theory development; 4) contextual variables that may mediate relationships between variables (e.g., principal change facilitator style and teacher receptivity to change); and 5) use of a conceptual model that reflects change processes, rather than outcomes.

Although significant relationships were not evident between some variables in the study, replication of this study with refined conceptual and operational definitions may prove valuable in identifying significant relationships among variables. A number of moderate, but nonsignificant, relationships were noted among the variables explored in school level analyses. Given the rather small sample sizes by school level and the problems previously noted with current conceptual and operational definitions of some variables, there is a need for additional

studies involving principal change facilitator style, bureaucratic and professional orientations, and teacher receptivity to change.

Perceptions of organizational roles is an important concern. Recent contributions to the literature strongly suggest that teachers' perceptions of their roles and beliefs about school organizational form and function are key factors in successful educational reform (Darling-Hammond, 1990). Although bureaucratic and professional orientations were not found to be useful variables in understanding teacher receptivity to change, other variables might be useful in exploring teachers' perceptions of their roles related to planned organizational change. For example it may be useful to explore relationships between teacher receptivity to change and teachers' needs for achievement and affiliation (Hersey & Blanchard, 1988).

Principal change facilitator style was shown in this study to be an important variable for understanding planned organizational change in schools. This construct, as well as others (e.g., teacher receptivity to change and professional orientation) were shown to be conceptually different than previously described in the literature. Thus, conceptual models are needed to accommodate these findings. Similarly, if conceptual models are to be useful in guiding future research, they need to accommodate school context variables (e.g., school level or SES) that may mediate relationships between the study variables. These theoretical models will also need to be able to explain both general relationships among schools as well as disparate relationships found within unique school contexts.

Essential characteristics of useful theories include the ability to explain a wide body of knowledge, and at the same time, predict new events. Results of this study suggest that future theory development will need to strive to reflect general relationships that are observed across

schools and explain the exceptional cases that appear in unique school contexts. While little is currently known about the specific context variables that interact with recognized general relationships to produce disparate findings in specific school contexts, there is a compelling need to identify these specific context variables to facilitate more accurate predictions of the relationships that may be observed in various school settings. As previously mentioned, these findings also have implications for the future implementation of complementary quantitative and qualitative research designs as future theories are developed.

Although other studies involving different organizational variables (e.g., coupling in Logan, 1990) have shown few school level differences, results of this study suggest that school level may be an important context variable that mediates relationships among the study variables. Further examination and explication of the mediating role of this variable appear useful. Similarly, it might be important to identify other variables that serve as contextual and mediating influences in important relationships among the study variables. If some variables (e.g., bureaucratic and professional orientations, and SES) are not important considerations for understanding planned organizational change in schools, then what variables might create differences across various school levels? Future investigations might include context variables such as climate variables (e.g., esprit, collegiality and disengagement), perceptions of efficacy (e.g., personal and performance), or pupil control ideology to explore relationships among teacher receptivity to change, principal leadership style, and planned organizational change in schools.

Given the concerns raised regarding contextual features of school organizations, it seems that future research using various units of analysis in longitudinal studies that span the various

stages of planned organizational change in schools are also needed. Such efforts are needed to further explore teacher receptivity to change and related variables as they are observed independently and in interaction with one another and, most importantly, at each stage of the planned change process.

Qualitative case studies of various school contexts that reflect involvement in organizational change processes may shed new light on understanding the role of principal leadership style in the ongoing and developmental process of creating a school culture that is conducive to successful change. Given the dynamic and interactive features of schools as complex organizations and the important role of principal leadership in schools, longitudinal studies spanning each stage of the change process in schools (i.e., from introduction to incorporation) may facilitate the identification of key variables for understanding planned organizational change in schools. These variables may also begin to reveal common threads across various school contexts that can contribute to refined understandings of the fit among principal leadership, school context and various aspects of the change process in school organizations.

Similarly, future studies need to incorporate both quantitative and qualitative research methodologies. Disparate relationships between variables such as principal change facilitator style and elements of planned organizational change (e.g., teacher receptivity to versus implementation of change efforts) suggest that greater attention needs to be given to studying the process of change than has been previously reflected in the literature. As research efforts are continued, consideration of research design and measurement issues previously discussed will

likely facilitate the development of theoretical frameworks that will accommodate the complexity of relationships among variables reflected in school organizations.

The conceptual model used in this study to organize variables emphasizes the process of change, rather than goals/outcomes of planned change efforts. Thus, the model appears to have utility in future research for studying variables believed to be important to understanding the process of planned organizational change in schools. A number of variables were reflected in the model that were not included as target variables for this study. For example, personal variables (e.g., beliefs and values) or organizational contextual variables (e.g., resources, technology, student clientele) could be specifically investigated in future studies using this model.

Although bureaucratic and professional orientations, as they were conceptualized and measured in this study, were shown to have little usefulness in understanding teacher receptivity to change, any number of variables might be substituted for role orientation variables and investigated in future studies using the model depicted in this study. For example, individuals' perceptions of efficacy (personal and performance) might be substituted for principals and teachers' role orientations in the model; or individuals' self-perceptions of need for affiliation and achievement might be substituted as well. Also longitudinal studies that explore such variables during each stage of the planned change process could be facilitated by use of this conceptual model.

Relationships demonstrated in this study between particular variables (e.g., principal change facilitator style and teacher receptivity to cultural/normative change) provide a first step toward the development of a comprehensive and useful theoretical model of planned organizational change in schools. These findings, and others as well, can contribute to the

development of a model for explaining general relationships among variables across schools and differences in relationships between variables within schools. As theories of planned organizational change in schools continue to evolve, such theories must be able to explain how school context factors mediate and alter relationships among key variables associated with the change process.

Educational and Practical Applications

Although the study was not designed to address educational or practical application of elements of planned organizational change in schools, several implications may be drawn from the results: 1) there is need to enhance principals' levels of awareness and sensitivity to teachers' differential responses to types of change initiatives; 2) preservice and inservice professional development programs for teachers may need to target increasing teachers' levels of awareness regarding relationships between principal behavior and teacher responses to change; and 3) successful planned organizational change in schools is not achieved through generic and prescriptive processes--there is no singular and best way to successfully achieve planned change in schools.

Effectiveness in schools is, in part, dependent upon the organizational ability of schools to maintain stability and manage change in response to the ever-present demands of the external environment and a changing student clientele. This study represents an initial exploration of variables which appear to have the potential for shedding new light on a very complex process that is essential to school organizational success.

References

Anderson, S. E. (1990). Principal's management style and patterns of teacher implementation across multiple innovations. Paper presented at the annual meeting of the American Educational Research Association, Boston, Massachusetts.

Bennis, W. G., Benne, K. D., & Chin, R. (1969). The planning of change. New York: Hold, Rinehart and Winston.

Blumberg, A., & Greenfield, W. (1986). The effective principal: Perspectives on school leadership (2nd ed.). Boston: Allyn & Bacon.

Bossert, S. T., Dwyer, D., Rowan, B., & Lee, G. V. (1982). The instructional management role of the principal. Educational Administration Quarterly, 18, 34-64.

Campbell, D. T., & Stanley, J. C. (1963). Experimental and quasi-experimental designs for research. Boston: Houghton Mifflin.

Chauvin, S. W. (1992). An exploration of principal change facilitator style, bureaucratic and professional orientations, and teacher receptivity to change. Unpublished doctoral dissertation. Baton Rouge: Louisiana State University.

Corbett, H. D., Dawson, J. A., & Firestone, W. A. (1984). School context and school change: Implications for effective planning. New York: Teachers College Press.

Corbett, H. D., Firestone, W. A., & Rossman, G. B. (1987). Resistance to planned change and the sacred in school cultures. Educational Administrative Quarterly, 23(4), 36-59.

Corwin, R. G. (1970). Militant professionalism: A study of organizational conflict in schools. New York: Appleton, Century, Crofts.

Corwin, R. G. (1965). Professional persons in public organizations. Educational Administrative Quarterly, 1, 1-22.

Crisafulli, D. A. (1982). The relationship between teacher receptivity to change and the organizational school climate. Doctoral Dissertation, George Peabody College for Teachers, Vanderbilt University, Dissertation Abstracts International, 44, 381A.

Cronbach, L. J., & Meehl, P. E. (1955). Construct validity in psychological tests. American Psychologist, 52, 281-302.

Cuban, L. (1988). Why do some reforms persist? Educational Administrative Quarterly, 24, 329-335.

Cuban, L. (1990). Reforming again, again, again, and again. Educational Researcher, 19(1), 3-13.

Darling-Hammond, L. (1990). Instructional policy into practice: "The power of the bottom over the top." Educational Evaluation and Policy Analysis, 12(3), 233-241.

Evans, R. L. (1988). Teachers' perception of principals' change facilitator styles in schools that differ according to effectiveness and socioeconomic context. Unpublished doctoral dissertation, University of New Orleans.

Fiedler, F. (1976). The contingency model and the dynamics of the leadership process. Advances in Experimental Social Psychology, 11, 60-112.

Forsyth, P. B., & Danisiewicz, T. J. (1985). Toward a theory of professionalization. Work and Occupations, 12(1), 59-76.

Foster, W. (1986). Toward a critical theory of educational administration. In T. J. Sergiovanni & H. E. Corbally (Eds.), Leadership and organizational culture. (pp. 240-259). Chicago: University of Illinois Press.

Getzels, J. W., & Guba, E. G. (1957). Social behavior and the administrative process. The School Review, 65, 423-441.

Giacquinta, J. B. (1973). The process of organizational change in schools. In F. B. Kerlinger (Ed.), Review of Research in Education. 1, 178-208.

Hall, G. E., & Hord, S. M. (1987). Change in schools: Facilitating the process. New York: State University of New York Press.

Hall, G. E., & Vandenberghe, R. (1987). The Change Facilitator Style Questionnaire. Greeley, Colorado: Concerns Based Systems International.

Hallinger, P., & Murphy, J. (1985). Assessing the instructional management behavior of principals. Elementary School Journal, 86(2), 217-247.

Harvey, T. R. (1990). Checklist for change: A pragmatic approach to creating and controlling change. Boston: Allyn and Bacon.

Hennigar, J. W. (1979). A research study of the relationships between the perceived managerial style of selected Main middle management public school administrators and their perceived receptivity to change. Ed. D. dissertation, George Peabody College for Teachers.

Hersey, P., & Blanchard, K. H. (1988). Management of organizational behavior: Utilizing human resources (5th ed). Englewood Cliffs, New Jersey: Prentice-Hall.

Hopkins, D. (1990). Integrating staff development and school improvement: A study of teacher personality and school climate. In B. Joyce (Ed.), Changing school culture through staff development (pp. 41-67). Alexandria, Virginia: Association for Supervision and Curriculum Development.

House, R. J. (1971). A path-goal theory of leader effectiveness. Administrative Science Quarterly, 16, 321-338.

Hoy, W. K., & Miskel, C. G. (1987). Educational administration: Theory, research, and practice (3rd. ed.) New York: Random House.

Johnson, B. L. (1991). School centralization and organizational effectiveness: the role of teacher alienation. Unpublished doctoral dissertation, Louisiana State University.

Joyce, B. (1990). Changing school culture through staff development. Alexandria, Virginia: Association for Supervision and Curriculum Development.

Kuhlman, E. L., & Hoy, W. K. (1974). The socialization of professionals into bureaucracies: The beginning teacher in the school. Journal of Educational Administration, 12(2), 18-27.

Leithwood, K. A., & Montgomery, D. J. (1982). The role of elementary school principals in program improvement. Review of Educational Research, 52, 309-339.

Lewin, K. (1947). Frontiers in group dynamics. Human Relations, 1, 5-41.

Lightfoot, S. L. (1983). The good high school: Portraits of character and culture. New York: Basic Books.

Lipham, J. (1988). Getzel's models in educational administration. In N. J. Boyan (ed.), Handbook on Research in Educational Administration. New York: Longman.

Logan, C. S. (1990). An exploration of the "paradoxical" view of coupling structure and school effectiveness. Unpublished doctoral dissertation, Louisiana State University, Baton Rouge, LA.

Murphy, J. (1989). Educational reform in the 1980s: Explaining some surprising success. Educational Evaluation and Policy Analysis, 11, 209-211.

Murphy, J. (1988). Methodological, measurement and conceptual problems in the study of instructional leadership. Educational Evaluation and Policy Analysis, 10(2), 117-139.

Owens, R. G., & Steinhoff, C. R. (1976). Administering change in schools. Englewood Cliffs, New Jersey: Prentice-Hall.

Sergiovanni, T. J. (1986). Leadership as cultural expression, In T. J. Sergiovanni & J. E. Corbally (Eds.) Leadership and organizational culture: New perspectives on administrative theory and practice (pp. 105-114). Chicago: University of Illinois Press.

Waugh, R. F., & Punch, K. F. (1987). Teacher receptivity to systemwide change in the implementation stage. Review of Educational Research, 57, 237-254.

Wimpelberg, R. K., Teddlie, C., & Stringfield, S. (1989). Sensitivity to context: The past and future of effective schools research. Educational Administration Quarterly, 25(1), 82-107.